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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,564	02/25/2002	Tetsu Takahashi	2163.1001	8623
21171 7590 04/16/2009 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				
EXAMINER				
HASAN, SYED Y				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
04/16/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/080,564

Applicant(s)

TAKAHASHI, TETSU

Examiner

SYED Y. HASAN

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 3, 8 - 14 and 19 - 22 is/are allowed.
- 6) ☒ Claim(s) 4, 15, and 23 is/are rejected.
- 7) ☒ Claim(s) 5 - 7 and 16 - 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/25/2002
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 - 23 filed on 01/16/2009 have been considered but are moot in view of the new ground(s) of rejection.

Komori (US 2003/00144750 has been replaced with Chen (US 2002/01036538) Onodera et al (US 4253143) discloses a semiconductor chip.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Chen (US 2002/0136538).

Regarding **claim 4**, Inoue et al discloses a coding/decoding part performing coding and decoding a given signal (fig 5 and 7) in one of a plurality of coding/decoding modes of different bit rates (fig 10, col 15, line 65 to col 16, line 12)

a recording medium coupled with said coding/decoding part (fig 5, 6, col 7, lines 32 – 50)

However Inoue et al does not disclose a control part automatically setting a bit rate to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium.

On the other hand, Chen teaches a control part automatically setting a bit rate to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium (fig 1, para 0011)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a control part automatically setting a bit rate to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium as taught by Chen in the system of Inoue et al in order to automatically set the recording quality for the stream of incoming video programs.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Chen (US 2002/0136538) and further in view of Onodera et al (US 4253143).

Regarding **claim 15**, Inoue et al and Chen disclose all the limitations as defined in claim 4 above except for a semiconductor chip.

On the other hand Onodera et al discloses a semiconductor chip capable of performing a control function (col 2, lines 9 – 22)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a semiconductor chip as taught by Onodera et al in the combined system of Inoue et al and Chen in order to utilize a LSI processor capable

of performing 8-bit processing.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Chen (US 2002/0136538) in view of Koizumi (US 5225909) and still further in view of Roth et al (US 5212678)

Regarding **claim 23**, Inoue et al and Chen disclose an image recording apparatus, performing coding and decoding of an input signal optionally recording the signal, comprising:

a control part automatically setting a bit rate corresponding to one of a plurality of coding/decoding modes according to at least an available storage capacity A (bytes) (see claim 4 above)

The combination of Inoue et al and Chen do not disclose that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output

On the other hand Koizumi teaches that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output (fig 6, col 1, lines 17 – 26)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on

the recording medium but is output as taught by Koizuma in the system of Inoue et al and Chen in order to detect the difference between both outputs.

The combination of Inoue et al, Chen and Koizumi et al does not disclose that a bit rate of the at least one coding/decoding mode in which the signal is not recorded being equal to or smaller than a rate determined according to the available storage capacity.

On the other hand Roth et al teaches a bit rate of the at least one coding/decoding mode in which the signal is not recorded being equal to or smaller than a rate determined according to the available storage capacity (col 9, lines 33 – 42)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a bit rate of the at least one coding/decoding mode in which the signal is not recorded being equal to or smaller than a rate determined according to the available storage capacity as taught by Roth et al in the system of Inoue et al, Chen and Koizuma in order to be capable of recording and/or reading the information having a bit rate lower than the bit rate corresponding to the scanning period.

Allowable Subject Matter

6. Claims 1 – 3, 8 – 14 and 19 - 22 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

The present invention of claims 1 – 3, 8 – 14 and 19 - 22 is directed to an image recording apparatus and semiconductor device comprising a coding/decoding part performing coding and decoding a given signal in one of a plurality of coding/decoding modes of different rates.

Independent claim 1 identifies the unique distinct feature "wherein the predetermined bit rate is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode".

The closest prior art, Inoue et al (US 5504759) discloses a coding/decoding part performing coding and decoding a given signal (fig 5 and 7) in one of a plurality of coding/decoding modes of different bit rates (fig 10, col 15, line 65 to col 16, line 12) but does not disclose wherein the predetermined bit rate is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode

Hence claim 1 is allowed.

Since claims 2 and 3 are dependent on claim 1, therefore they are also allowed.

Therefore claims 1 – 3 are allowed over prior art.

Independent claims 8, 12 and 19 identify the unique distinct feature "wherein a bit rate of the second mode is equal to or larger than a bit rate determined by the control part based on a remaining capacity of the recording medium in the first mode".

Hence claims 8, 12 and 19 are allowed.

Since claims 9 - 11 are dependent on claim 8, claims 13 and 14 are dependent on claim 12 and claims 20 - 22 are dependent on claim 19, therefore they are also allowed.

Therefore claims 8 – 11, 12 - 14 and 19 - 22 are allowed over prior art.

8. Claims 5 – 7 and 16 – 18 are objected as being dependent on a rejected base claim, but would allowable if rewritten in independent form including all of the limitations

of the base claim and any intervening claims and amended to overcome the rejection(s) under 35 U.S.C. 102 set forth in this Office action.

Regarding **claims 5 and 16**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 5, the prior art fails to disclose the image recording apparatus, wherein:

control part sets the bit rate further depending on a time T (seconds) of recording reserved;

a maximum available recording bit rate R_{max} (bps); and

a minimum available recording bit rate R_{min} (bps); and

said control part determines the bit rate R (bps) by which the recording is performed to satisfy the following formula: $T \cdot R / 8 \cdot \log_2 A$ wherein,
 $R = R_{max}$ when $R > R_{max}$; and $R = R_{min}$ when $R < R_{min}$.

Regarding **claims 6 and 17**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 6, the prior art fails to disclose the image recording apparatus, wherein:

said control part sets a lower the bit rate by which the recording is performed when the remaining storage capacity A is less than a predetermined value.

Regarding **claims 7 and 18**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 7, the prior art fails to disclose the image recording apparatus, wherein:

the control part sets the bit rate further depending on a time T (seconds)

of recording reserved; and

a minimum available recording bit rate R_{min} (bps); and

said control part determines the bit rate R (bps) by which the recording is performed to satisfy the following formula: $T \cdot R / 8 \cdot I_{toreq} \cdot A$ wherein $R = R_{min}$ when $R < R_{min}$.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Y. Hasan whose telephone number is 571-270-1082. The examiner can normally be reached on 9/8/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/S. Y. H./
03/30/2009

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621